

Chapter NR 114

**CERTIFICATION REQUIREMENTS FOR
WATERWORKS AND WASTEWATER TREATMENT PLANT
OPERATORS**

NR 114.01	Purpose	NR 114.11	Qualifications of wastewater treatment plant operators
NR 114.02	Applicability	NR 114.12	Classification of waterworks
NR 114.03	Definitions	NR 114.13	Qualifications of waterworks operators
NR 114.04	Severability	NR 114.14	Required grades for the operation of waterworks and wastewater treatment plants
NR 114.06	Examinations and applications		
NR 114.07	Fees		
NR 114.08	Issuance of certificates		
NR 114.09	Revocation of certificates		
NR 114.10	Classification of wastewater treatment plants		

Note: Chapter NR 114 as it existed on October 31, 1978 was repealed and a new Chapter NR 114 was created effective November 1, 1978.

NR 114.01 Purpose. This chapter establishes an examining program for the certification of waterworks and wastewater treatment plant operators pursuant to s. 144.025(2)(1), Stats. No person may operate a waterworks or wastewater treatment plant unless that person holds a valid certificate issued pursuant to this chapter.

Note: Pursuant to s. 144.57, Stats, any person who violates this chapter, shall forfeit not less than \$10 nor more than \$5,000 for each violation. Each day of continued violation is a separate offense.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; am. Register, February, 1984, No. 338, eff. 3-1-84.

NR 114.02 Applicability. The provisions of this chapter are applicable to all owners and operators of waterworks and wastewater treatment plants as defined in this chapter.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; am. Register, February, 1984, No. 338, eff. 3-1-84.

NR 114.03 Definitions. (2) "Certificate" means a printed document issued by the department, pursuant to this chapter, stating that the individual named therein has met the competency requirements for one or more operator grades and subgrades.

(3) "Certified operator" means an individual who has met the requirements of this chapter and has been issued a certificate by the department to operate one or more of the classifications of waterworks or wastewater treatment plants.

(4) "Community water system" means a public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

(5) "Department" means the department of natural resources.

(6) "Direct responsible charge" means to provide detailed on-site technical direction of the operation of a waterworks or wastewater treat-

Register, February, 1984, No. 338
Environmental Protection

ment plant. Not included in this definition are shift operators or shift supervisors. Also not included are utility managers, city engineers, directors of public works or the equivalent, who are not actually involved in day-to-day operations.

(7) "Experience in the operation of a waterworks or a wastewater treatment plant" means either (a) to perform duties that directly affect the treatment process or final effluent or product, or (b) to provide daily on-site technical supervision of the person or persons performing such duties.

(8) "Industrial wastewater treatment facility" means a privately owned wastewater treatment plant for treating liquid wastes resulting from any process of industry, manufacture, trade or business or the development of any natural resources.

(9) "Land disposal system" means a facility for disposing of liquid wastes consisting of:

- (a) An absorption or seepage pond system,
- (b) A ridge and furrow system,
- (c) A spray irrigation system,
- (d) A spray runoff system,
- (e) A subsurface field absorption system,
- (f) A surface spreading system, or
- (g) Any other land area receiving liquid waste discharges.

(10) "Major contributing industry" means an industrial or commercial facility that is a user of a publicly owned wastewater treatment plant, and has a waste which the department determines has, or in the case of a new source will have, a significant impact, either singly or in combination with other wastes, on the publicly owned wastewater treatment plant or on the quality of effluent from such plants.

(11) "Municipal water system" means a community water system owned by a county, city, village, town, town sanitary district, utility district, public institution as defined in s. 49.10 (12)(f)l., Stats.

(12) "Operate" means to be in direct responsible charge of the operation of a waterworks or a wastewater treatment plant.

(13) "Owner" means the state, county, town, town sanitary district, city, village, metropolitan sewerage district, corporation, firm, company, institution, association, utility district, school district, joint sewerage commission or individual responsible for providing water or wastewater treatment.

(14) "Public water system" means a system for the provision to the public of piped water for human consumption, if the system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. The term includes any:

(a) Collection, treatment, storage and distribution facilities under control of the operator of the system and used primarily in connection with the system, and

(b) Collection or pretreatment storage facilities not under the operator's control which are used primarily in connection with the system.

(15) "Secretary" means the secretary of the department of natural resources.

(16) "Wastewater treatment plant" means any facility provided for the treatment of sanitary or industrial wastewater or both. The following types of systems are excluded:

(a) Facilities defined as private sewage systems in s. 145.01 (14), Stats.

(b) Pretreatment facilities from which effluent is directed to a public sewer system for treatment.

(c) Industrial wastewater treatment facilities which consist solely of a land disposal system.

(17) "Waterworks" means a municipal water system.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; am. (6), (7), (8), (10), (12), (14) and (16), Register, February, 1984, No. 338, eff. 3-1-84.

NR 114.04 Severability. Should any section, paragraph, phrase, sentence, clause or word of this chapter be declared invalid or unconstitutional for any reason, the remainder of this chapter shall not be affected thereby.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78.

NR 114.05 Boards of certification. History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; r. Register, February, 1984, No. 338, eff. 3-1-84.

NR 114.06 Examinations and applications. (1) Examinations shall be used to determine knowledge, skill and ability of the applicants to operate a waterworks or wastewater treatment plant. A score of 75% or higher shall be a passing score on each examination. An individual desiring to be certified shall file an application with the department at least 21 days prior to the established date of a written examination on an application form provided by the department. Fees as outlined in s. NR 114.07 must accompany the application. Applicants shall be notified of their eligibility for examination.

(2) Written examinations shall be conducted at last 3 times annually at locations and times set by the department. Practical examinations shall be arranged with each individual applicant.

(3) Written examinations will not be issued to persons who have not properly registered 21 days prior to the examination date, or who fail to identify themselves on request.

(4) Examination papers will not be returned to the applicant but means will be provided for review of the results with a staff member of the department upon request by the applicant within 30 days of notification of result. Examination papers may be destroyed after the 30-day notification period.

(5) Applicants who fail to pass a written examination may apply to the department for reexamination at a subsequent scheduled examination. Applicants who fail a practical examination may arrange for a reexamination without a formal reapplication.

(6) The department may, by mutual agreement with the operator in charge, delegate the administering of practical examinations. The person administering the exams must be certified to at least the grade required for that facility. For municipal waterworks and wastewater treatment plants this delegation will be limited to plants with design flows of at least 5 million gallons per day. An individual may request that the practical examination be administered by the department.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; am. (1), (2) and (3), cr. (6), Register, February, 1984, No. 338, eff. 3-1-84.

NR 114.07 Fees. (1) Fees for certification shall be as follows:

(a) Written examination administrative fee	\$ 5.00
(b) Each written examination	2.00
(c) Biennial renewal-waterworks certificate.....	10.00
(d) Biennial renewal-wastewater certificate.....	10.00
(e) Late renewal penalty	10.00
(f) Reciprocity	20.00

(2) Fees shall accompany the completed application form. There is no limit to the number of examinations that can be taken on one date, but each examination requires the \$2.00 fee listed in par. (b). The department recommends that operators attempt no more than 10 wastewater or 4 waterwork examinations on one date.

(3) The renewal fee is due on the expiration date of the certificate. Any renewal application postmarked after the expiration date shall also include a \$10.00 late renewal penalty.

(4) Fees will not be refunded to a candidate who fails to pass a written certification examination or who fails to appear to take the examination.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; r. and recr. Register, February, 1984, No. 338, eff. 3-1-84.

NR 114.08 Issuance of certificates. (1) Upon satisfactory fulfillment of the qualifications required by this chapter and receipt of the certification fee, the department shall issue a certificate to an applicant indicating the grade(s) for which the applicant has qualified.

(2) Certified operators who desire to become certified in another grade must fulfill satisfactorily the established qualifications and pay the established fees before a new certificate is issued.

(3) Certificates may be issued, without examination, in a comparable grade to any person who holds a certificate in any state, territory or possession of the United States or any country, if in the judgment of the department the requirements for certification of operators under which the person's certificate was issued do not conflict with the provisions or intent of these rules and are of a standard not lower than that specified by these rules.

(5) An individual whose certificate has lapsed may be reinstated by paying the biennial renewal fee, fulfilling the continuing education re-

Register, February, 1984, No. 338
Environmental Protection

quirements for the lapsed period, and paying a \$10.00 late renewal penalty. An individual may choose to follow the procedures for initial certification.

(6) All certificates shall expire 2 years from the date of issuance. Certificates may be renewed subject to the requirements of sub. (7).

(7) Renewal requirements. All individuals whose certificates have expired, and who desire to renew their certificates, shall submit the continuing education record forms provided by the department for approved training courses which they have successfully completed during the 2-year period. These may include, but are not limited to, courses sponsored by the department or any university or technical school, technical sessions at meetings of professional organizations, in-house training and correspondence courses. Failure to successfully complete at least 12 hours of approved training within the 2-year period shall result in rejection of a certificate renewal application.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; am. (3), (5), (6) and (7) and r. (4), Register, February, 1984, No. 338, eff. 3-1-84.

NR 114.09 Revocation of certificates. (1) The department may, on its own motion, make investigations and conduct hearings and may, on its own motion or on a signed and verified written complaint, revoke or refuse to renew as provided in this section any operator's certificate if the department finds that the holder of the certificate has:

(a) Made a material misstatement in the application for certification or any application for a renewal of certification, or

(b) Demonstrated incompetence to operate the type of facility for which the certificate was issued, or

(c) Bypassed a discharge at a wastewater treatment plant in violation of the plant's WPDES permit without notifying the department, or

(d) As the individual in direct responsible charge of the operation of a waterworks, failed to notify the department of a violation of a maximum contaminant level as required in ch. NR 109, or

(e) Falsified any monitoring or operating records submitted to the department, or

(f) By intentional or negligent action, caused or significantly contributed to a violation of any provision of ch. 144 or 147, Stats., or any administrative codes, permits or orders adopted or issued under those chapters.

(2) Notice of revocation of or refusal to renew a certificate shall be served on the certified operator and shall state the reasons for revocation or refusal to renew.

(3) Revocation of or refusal to renew a certificate shall take effect on the 10th day after the notice is served, unless the certified operator files a written answer with the department prior to the 10th day. If such an answer is filed, the revocation or refusal to renew is stayed and the department shall conduct a hearing on the matter within 30 days after receipt of the answer. At least 10 days prior to the date of the hearing, the department shall send a written notice to the operator indicating the date, time and location of the hearing. The final determination of the de-

partment, including the basis for the decision, shall be provided in writing to the operator.

(4) Application may be made for taking the necessary examinations for a new certificate, beginning at the grade one level, one year after the date of revocation or refusal to renew.

(5) Any order revoking a certificate is subject to judicial review as provided in ch. 227, Stats.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; am. (1) (Intro.), (c) and (4), r. and recr. (1) (f) Register, February, 1984, No. 338, eff. 3-1-84.

NR 114.10 Classification of wastewater treatment plants. (1) Each wastewater treatment plant shall be assigned a class based upon a system of rating values and shall be assigned one or more subclasses based on the operations performed at that plant.

(2) Items to be rated and their assigned values are:

- | | |
|--|----------|
| (a) Design flow is greater than 1 MGD | 1 Point |
| (b) Plant uses 4 to 7 of the processes listed in sub. (3) (a) through (i) | 1 Point |
| (c) Plant uses 8 or 9 of the processes listed in sub. (3) (a) through (i) | 2 Points |
| (d) Treatment required is based on water quality limits for an industrial wastewater treatment facility | 1 Point |
| (e) Treatment, including seasonal effluent limits, required for biochemical oxygen demand and suspended solids is more stringent than specified in ch. NR 210 for a nonindustrial wastewater treatment plant | 1 Point |
| (f) Receives wastewater from a major contributing industry | 1 Point |

Classification

Class 1	0 Points
Class 2	1 Point
Class 3	2 Points
Class 4	3 to 5 Points

(3) Subclasses are:

- (a) Primary settling
- (b) Trickling filters and rotating biological contactors
- (c) Activated sludge
- (d) Stabilization ponds and aerated lagoons
- (e) Disinfection
- (f) Anaerobic digestion
- (g) Sludge handling including but not limited to mechanical dewatering, heat treatment and incineration. This subclass is not required for land disposal or drying beds
- (h) Filtration

Register, February, 1984, No. 338
Environmental Protection

- (i) Phosphorus removal by chemical addition
- (j) On-site laboratory testing for BOD or suspended solids
- (k) Special — generally for treatment plants not required to monitor BOD

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; am. (1), (2) (b), (c), (d) and (e) and (3) (a), (g) and (k), Register, February, 1984, No. 338, eff. 3-1-84.

NR 114.11 Qualifications of wastewater treatment plant operators. (1) Five grades and eleven subgrades of wastewater treatment plant operators are hereby established. To qualify for certification in a given grade and subgrade, an individual must meet the appropriate experience and examination requirements for that grade and pass the applicable examination(s) for the subgrade at that level.

(a) Grade 1. Pass a written examination of knowledge necessary to operate a class 1 wastewater treatment plant and a written and practical examination of the individual's ability to perform routine operational duties for the given plant subclass.

(b) Grade 2. Completion of grade 1 requirements plus one year of satisfactory experience in the operation of the given plant subclass plus pass a written examination of the knowledge necessary to operate a class 2 wastewater treatment plant and a written examination of the individual's ability to identify and correct common operating problems involving the given plant subclass.

(c) Grade 3. Completion of grade 2 requirements, including one year of satisfactory experience in the operation of the given plant subclass, plus pass a written examination of the knowledge necessary to operate a class 3 wastewater treatment plant and a written examination of the individual's ability to identify and correct less common operating problems involving the given plant subclass.

(d) Grade 4. Completion of grade 3 requirements, including one additional year of satisfactory experience in the general operations of a wastewater treatment plant, plus pass a written examination of the knowledge necessary to operate a class 4 wastewater treatment plant and a written examination of the individual's ability to identify and correct complex operating problems involving the given plant subclass.

(e) Operator-in-training grade. Pass the written grade 1 examination for a given plant subclass.

(2) Operator subgrades are the same as plant subclasses listed in s. NR 114.10 (3).

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; am. (1) (intro.) to (d) and (2), Register, February, 1984, No. 338, eff. 3-1-84.

NR 114.12 Classification of waterworks. (1) The classification of each waterworks shall be the sum of all the applicable classes listed below:

- (a) Class G. All waterworks utilizing a ground water source.
- (b) Class Z. All waterworks providing zeolite softening.
- (c) Class I. All waterworks providing iron removal by oxidation and filtration.

NR 114

(d) Class L. All waterworks providing treatment by the lime-soda ash process for iron removal and/or softening.

(e) Class S. All waterworks utilizing a surface water source.

(f) Class D. All waterworks containing a distribution system.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78.

NR 114.13 Qualification of waterworks operators. (1) Two grades and 6 subgrades of waterworks operators are hereby established. To qualify for certification in a given grade and subgrade, an individual must meet the appropriate experience requirement and pass the applicable examinations for the subgrade.

(a) Grade 1. One year of satisfactory experience in the operation of the given waterworks class plus pass a written and a practical examination of the individual's ability to perform routine operational duties and identify and correct operating problems involving the given waterworks class.

(b) Operator-in-training grade. Pass the written grade 1 examination for the given waterworks class.

(2) Operator subgrades are the same as waterworks classes listed in s. NR 114.12.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78.

NR 114.14 Required grades for the operation of waterworks and wastewater treatment plants. (1) **WASTEWATER TREATMENT PLANTS.** (a) The individual in direct responsible charge of the operation of a subclass of a treatment plant listed in s. NR 114.10 (3) must hold a valid certificate for the corresponding subgrade at a grade the same as, or higher than, the plant class, except as provided in pars. (b) to (d).

(b) An individual certified as a wastewater treatment plant operator at least at the grade 1 level for a plant subclass may be in direct responsible charge of that subclass of a class 2, 3 or 4 treatment plant for a period not to exceed one year.

(c) An individual certified as a wastewater treatment plant operator-in-training may operate that subclass of a treatment plant for a period not to exceed 4 months.

(d) An individual certified as a wastewater treatment plant operator may be in direct responsible charge of a plant one class higher than the grade of the operator's certificate, provided that:

1. The operator has made an earnest effort to pass the required written examinations. Earnest effort shall include having attempted to pass the necessary written examinations at least 3 times over a 2-year period and having attended applicable training courses during this time.

2. The operator is certified to at least the grade 1 level for the required subclasses.

3. The plant has met effluent limitations based upon the sewer extension criteria in s. NR 110.05.

Register, February, 1984, No. 338
Environmental Protection

4. The operator has demonstrated proper operation and maintenance of the plant.

5. The operator in direct responsible charge of the wastewater treatment plant was employed in that capacity on March 1, 1984.

(2) WATERWORKS. (a) The individual in direct responsible charge of the operation of a class of waterworks listed in s. NR 114.12 (1) must hold a valid certification for the corresponding subgrade at the grade 1 level, except as provided in par. (b).

(b) An individual certified as a waterworks operator-in-training may operate that class of waterworks for a period not to exceed one year.

(3) The owner of each waterworks and wastewater treatment plant shall designate to the department the operator(s) in direct responsible charge as required in s. NR 114.13 (1) and (2).

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; am. (1) (a) to (c), (2) (a) and (3), cr. (1) (d), Register, February, 1984, No. 338, eff. 3-1-84.